



Infrastructure, environment, facilities

Mr. James Saric, Remedial Project Manager  
USEPA Region 5  
77 West Jackson Boulevard (SR-6J)  
Chicago, IL 60604-3507

ARCADIS  
10559 Citation Drive  
Suite 100  
Brighton  
Michigan 48116  
Tel 810 229 8594  
Fax 810 229 8837  
[www.arcadis-us.com](http://www.arcadis-us.com)

Subject

Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site  
Supplemental Remedial Investigations/Feasibility Studies Monthly Progress Report  
Area 1 – Morrow Dam to Plainwell Dam (April 2008)

INDUSTRIAL

Dear Jim:

Date  
May 15, 2008

Attached is the 14<sup>th</sup> monthly progress report for the Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site Supplemental Remedial Investigation/Feasibility Study (SRI/FS) – Area 1. This progress report is submitted as per Paragraph 37 of the February 2007 Administrative Settlement Agreement and Order on Consent (AOC) for Remedial Investigations/Feasibility Studies (Docket No. V-W-07-C-864), as well as Section 7.1 of the associated Statement of Work (SOW). If you have any questions, please do not hesitate to contact me.

Contact  
Michael J. Erickson, P.E.

Sincerely,

Phone  
810.225.1924

ARCADIS

Email  
[michael.erickson@arcadis-us.com](mailto:michael.erickson@arcadis-us.com)

Our ref  
B0064539.00014 #2

Michael J. Erickson, P.E.  
Associate Vice President

Attachments

Copies

Michael Berkoff, USEPA  
Sam Chummar, USEPA  
Michael Ribordy, USEPA  
Paul Bucholtz, MDEQ (with Attachment A)  
Jeff Keiser, CH2M HILL (with Attachment A)  
J. Michael Davis, Esq., Georgia-Pacific Corporation  
Mellonie Fleming, Esq., Georgia-Pacific Corporation  
David Guier, Millennium Holdings, LLC  
Suda Arakere, Millennium Holdings, LLC  
Paul Montney, P.E., Georgia-Pacific Corporation  
L. Chase Fortenberry, P.G., Georgia-Pacific Corporation  
Mark Brown, Ph.D., Georgia-Pacific Corporation



**MONTHLY PROGRESS REPORT FOR THE ALLIED PAPER, INC./PORTAGE CREEK/  
KALAMAZOO RIVER SUPERFUND SITE SRI/FS  
AREA 1 (MORROW DAM TO PLAINWELL DAM)**

**REPORT #14, APRIL 2008**

**PREPARED BY ARCADIS  
MAY 15, 2008**

**ON BEHALF OF THE KALAMAZOO RIVER STUDY GROUP (KRSG)**

**SUBMITTED TO**

**JAMES SARIC, REMEDIAL PROJECT MANAGER  
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (USEPA)**

**Monthly Progress Report for the Allied Paper, Inc./Portage Creek/  
Kalamazoo River Superfund Site SRI/FS – Area 1**

**REPORT #14, APRIL 2008**

**Significant Developments and Activities during the Period, Including Actions Undertaken Pursuant to the AOC and SOW**

- On April 1, ARCADIS forwarded to the USEPA information identifying the panel members for the peer review of ecological risk studies. The peer review process is discussed in Section 1.2.1.3 of the SOW.
- On April 1, the USEPA forwarded to the KRSG comments on the March 27 letter regarding the revision of draft Risk Assessment Framework (RAF). The RAF is discussed in Section 1.2.1.5 of the SOW.
- On April 2, the USEPA held a public meeting in Plainwell.
- On April 11, ARCADIS transmitted the Area 1 SRI Phase 1 Data Report to the USEPA and MDEQ. An electronic copy of the report was subsequently forwarded on April 17.
- On April 15, ARCADIS transmitted to the USEPA a revised draft letter regarding the revision of the draft RAF. The revised draft was in response to the USEPA's April 1 comments on the previous draft.
- On April 17, ARCADIS submitted to the USEPA a revised and expanded draft investigation plan for the Plainwell No. 2 Dam Area.
- On April 18, ARCADIS submitted the revised draft Conceptual Site Model (CSM) to the USEPA. The submission also included the responses to the associated comments received from the USEPA and MDEQ. The CSM is discussed in Section 1.2.1.4 of the SOW
- On April 21, ARCADIS forwarded to the USEPA two draft reports for the peer review panel: 1) Dr. Giesy's and Dr. Zwiernik's Ecological Consequences of PCBs in the Exposed Sediments of Formerly Impounded Areas of the Kalamazoo River – Overview of Studies Conducted by MSU and 2) ARCADIS' Supporting Document for Ecological Risk Studies Peer Review – Characteristics of the Formerly Impounded Areas.
- On April 22, ARCADIS forwarded to the USEPA and MDEQ an electronic file of the data presented in the Area 1 SRI Phase 1 Data Report.
- On April 25, ARCADIS transmitted to the USEPA another revised draft letter regarding the revision of the draft RAF based on comments from the USEPA.
- On April 28, ARCADIS submitted the revised draft Data Management Plan (DMP) to the USEPA. The submission also included the responses to the associated comments received from the USEPA. The DMP is discussed in Section 1.3 of the SOW.

**Monthly Progress Report for the Allied Paper, Inc./Portage Creek/  
Kalamazoo River Superfund Site SRI/FS – Area 1**

**REPORT #14, APRIL 2008**

- In April, the KRSG, USEPA and MDEQ discussed the disposal of historical archived sediment cores from Area 1. The KRSG awaits resolution of this issue.
- The KRSG awaits USEPA's response to the letter requesting USEPA's data usability determination for existing data for purposes of the SRI/FS, which was submitted to USEPA on August 27, 2007.
- The KRSG awaits USEPA's comments on the Multi Area Feasibility Study documents (Section 1.2.2 of the SOW) and the Candidate Technologies and Testing Needs Technical Memorandum (Section 4.1 of the SOW), which were submitted to USEPA on February 22.
- The KRSG awaits USEPA's approval of the CSM, which was submitted to the USEPA on April 18.
- The KRSG awaits USEPA's approval of the DMP, which was submitted to the USEPA on April 28.

**Data Collected and Field Activities Conducted During the Period**

- In April, ARCADIS collected water column samples every other day at the upstream and downstream locations related to the Former Plainwell Impoundment Time-Critical Removal Action (TCRA). Table A summarizes the samples collected that were sent to TestAmerica Laboratories, Inc. (TestAmerica) for analysis. This sampling is discussed in Section 3.4.5 of the Area 1 SRI/FS Work Plan.

**Laboratory Data Received During the Period**

- In April, ARCADIS received laboratory data for the surface water samples collected between March 27 and April 10 (sample delivery groups [SDGs] TCRA32 and TCRA 33). Table A presents a list of the samples for which data were received. The June 2008 monthly report will present the validated surface water data for these samples.
- Validated data for the SDGs received in February are included in this monthly report. These data include the top-of-bank soil cores collected along the mill race and the Kalamazoo River between the Plainwell No 2 Dam and the confluence of the mill race and the river (sample delivery groups [SDGs] SRI005 and SRI006). (Table B) and the post-removal surface sediment samples from the 2007 Plainwell time critical removal action (TCRA) removal areas (SDGs SRI007 and SRI008) (Table C). Attachment A contains the validation report for these packages. The enclosed CD also contains the EDD for these data

**Monthly Progress Report for the Allied Paper, Inc./Portage Creek/  
Kalamazoo River Superfund Site SRI/FS – Area 1**

**REPORT #14, APRIL 2008**

**Problems**

- There will be no surface water sample data for the samples collected on April 24. The laboratory extracted the sample for analysis from sampling container and container was disposed. Laboratory personnel then broke the container of extracted material before PCB analysis could be conducted.

**Actions Taken to Correct Problems**

- None.

**Developments Anticipated During the Next Two Reporting Periods**

- On May 5, ARCADIS is scheduled to transmit to the USEPA the Peer Review Scope of Work and the Charge to the Peer Review Panel (see Section 1.2.1.3 of the SOW). The USEPA is scheduled to approve the Charge to the Peer Review Panel prior to the meeting scheduled for May 13 and 14.
- On May 5, the KRSG is scheduled to submit a revised draft RAF to the USEPA for approval.
- On May 7, the USEPA is scheduled to approve the revised and expanded draft investigation plan for the Plainwell No. 2 Dam Area.
- On May 13 and 14, the peer review panel is scheduled to meet for delivery of the Charge to the Peer Review Panel and a site tour.
- In May, the USEPA and KRSG will continue to work on the Peer Review Process (see Section 1.2.1.3 of the SOW).
- In May, ARCADIS will continue to work on the development of Phase 2 sampling plans for Area 1, as described in the Area 1 SRI/FS Work Plan.

**Kalamazoo River Study Group**  
**Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site**  
**Supplemental Remedial Investigations/Feasibility Studies**  
**Monthly Report #14, April 2008**

**Table A — Upstream/Downstream Surface Water Sampling — Plainwell**  
**TCRA — Samples Collected in April 2008**

Sample ID	Sample Date	Data Received	Sample Delivery Group	Sample Location
K30779	3/27/2008	4/21/2008	TCRA32_SDSP	10th Street Bridge
K30780	3/27/2008	4/21/2008	TCRA32_SDSP	Farmer Street Bridge
K30781	3/29/2008	4/21/2008	TCRA32_SDSP	10th Street Bridge
K30782	3/29/2008	4/21/2008	TCRA32_SDSP	Farmer Street Bridge
K30783	3/31/2008	4/21/2008	TCRA32_SDSP	10th Street Bridge
K30784	3/31/2008	4/21/2008	TCRA32_SDSP	Farmer Street Bridge
K30785	4/2/2008	4/21/2008	TCRA32_SDSP	10th Street Bridge
K30786	4/2/2008	4/21/2008	TCRA32_SDSP	Farmer Street Bridge
K30787	4/4/2008	4/29/2008	TCRA33_SDSP	10th Street Bridge
K30788	4/4/2008	4/29/2008	TCRA33_SDSP	Farmer Street Bridge
K30789	4/6/2008	4/29/2008	TCRA33_SDSP	10th Street Bridge
K30790	4/6/2008	4/29/2008	TCRA33_SDSP	Farmer Street Bridge
K30791	4/8/2008	4/29/2008	TCRA33_SDSP	10th Street Bridge
K30792	4/8/2008	4/29/2008	TCRA33_SDSP	Farmer Street Bridge
K30793 [K30795]	4/10/2008	4/29/2008	TCRA33_SDSP	10th Street Bridge
K30794 <sup>1</sup>	4/10/2008	4/29/2008	TCRA33_SDSP	Farmer Street Bridge
K30796	4/10/2008	4/29/2008	TCRA33_SDSP	Rinse Blank
K30797	4/12/2008	NR	NR	10th Street Bridge
K30798	4/12/2008	NR	NR	Farmer Street Bridge
K30799	4/14/2008	NR	NR	Farmer Street Bridge
K30800	4/14/2008	NR	NR	10th Street Bridge
K30801	4/16/2008	NR	NR	Farmer Street Bridge
K30802	4/16/2008	NR	NR	10th Street Bridge
K30803	4/18/2008	NR	NR	Farmer Street Bridge
K30804	4/18/2008	NR	NR	10th Street Bridge
K30805	4/20/2008	NR	NR	Farmer Street Bridge
K30806	4/20/2008	NR	NR	10th Street Bridge
K30807	4/22/2008	NR	NR	Farmer Street Bridge
K30808	4/22/2008	NR	NR	10th Street Bridge
K30809 <sup>2</sup>	4/24/2008	NR	NR	Farmer Street Bridge
K30810 <sup>2</sup>	4/24/2008	NR	NR	10th Street Bridge
K30811	4/26/2008	NR	NR	Farmer Street Bridge
K30812	4/26/2008	NR	NR	10th Street Bridge
K30813	4/28/2008	NR	NR	Farmer Street Bridge
K30814	4/28/2008	NR	NR	10th Street Bridge
K30815 [K30816]	4/30/2008	NR	NR	Farmer Street Bridge
K30817 <sup>1</sup>	4/30/2008	NR	NR	10th Street Bridge

**Notes:**

NR - Data not received as of April 30, 2007.

All samples analyzed by TestAmerica Laboratories, Inc. for PCBs and TSS.

Duplicate samples are in brackets

<sup>1</sup>MS/MSD performed on this sample

<sup>2</sup>Due to laboratory error, there is no sample for this day

**Kalamazoo River Study Group**  
**Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site**  
**Supplemental Remedial Investigations/Feasibility Studies**  
**Monthly Report #14, April 2008**

**Table B — Top-of-Bank Samples — Data Received in April 2008**

Location ID:		KRT11-TB-A	KRT11-TB-A	KRT11-TB-A	KRT11-TB-B	KRT11-TB-B	KRT11-TB-B	KRT12-TB-A	KRT12-TB-A	KRT12-TB-A	KRT12-TB-B	KRT12-TB-B
Sample Depth (inches):		0 - 6	6 - 12	12 - 14	0 - 6	6 - 12	12 - 14	0 - 6	6 - 12	12 - 16	0 - 6	6 - 12
Date Collected:		01/08/08	01/08/08	01/08/08	01/08/08	01/08/08	01/08/08	01/08/08	01/08/08	01/08/08	01/08/08	01/08/08
Sample Name:	Units	K25800	K25801	K25802	K25803	K25805	K25806	K25807	K25809	K25810	K25811	K25812
<b>PCB Aroclors</b>												
Aroclor-1016	mg/kg	0.086 U	0.089 U	0.082 U	0.070 U [0.074 U]	0.060 U	0.055 U	0.94 U [0.94 U]	1.9 U	0.28 U	0.25 U	0.37 U
Aroclor-1221	mg/kg	0.086 U	0.089 U	0.082 U	0.070 U [0.074 U]	0.060 U	0.055 U	0.94 U [0.94 U]	1.9 U	0.28 U	0.25 U	0.37 U
Aroclor-1232	mg/kg	0.086 U	0.089 U	0.082 U	0.070 U [0.074 U]	0.060 U	0.055 U	0.94 U [0.94 U]	1.9 U	0.28 U	0.25 U	0.37 U
Aroclor-1242	mg/kg	0.18	0.089 U	0.082 U	0.32 [0.26]	0.060 U	0.078	0.94 U [0.94 U]	1.9 U	0.28 U	1.3	0.37 U
Aroclor-1248	mg/kg	0.086 U	0.089 U	0.082 U	0.070 U [0.074 U]	0.31	0.15	4.7 [3.9]	10	1.4	0.25 U	1.9
Aroclor-1254	mg/kg	0.69	0.047 J	0.082 U	0.50 [0.42]	0.20	0.11	3.6 [3.0]	5.6	1.2	1.0	1.5
Aroclor-1260	mg/kg	0.15	0.089 U	0.082 U	0.11 [0.096]	0.091	0.055 U	0.86 J [0.72 J]	1.0 J	0.35	0.24 J	0.34 J
Total PCBs	mg/kg	1.0	0.047 J	0.082 U	0.93 [0.78]	0.60	0.34	9.2 [7.6]	17	3.0	2.5	3.7
<b>Miscellaneous</b>												
Percent Solids	%	57.9	56.3	61.1	71.4 [67.4]	83.3	91.1	53.3 [53.2]	54	54.1	61.2	66.7
Total Organic Carbon	mg/kg	75,600	60,300	46,300	34,400 [34,300]	24,800 J	10,800	94,400 [137,000]	106,000	99,300	88,500	58,000
<b>Grain Size Analysis</b>												
Gravel	%	0.8	0.1	NA	6.5 [8.1]	14.1	9.3	2.4 [0.7]	1.2	7.4	0	0.8
Coarse Sand	%	0.6	0.5	NA	15.6 [22.4]	44.6	38.5	2.4 [2.4]	1.8	2	0.3	0.2
Medium Sand	%	4.4	4.1	NA	25.8 [31.9]	30.1	32.1	17.3 [26.2]	22	12.3	10.6	2.9
Fine Sand	%	16.6	31.7	NA	29.4 [26.9]	8.6	10.8	19.1 [17]	18	32.2	52.6	62.6
Silt	%	55	45.5	NA	20 [6.9]	1.9	8.6	41.3 [37.6]	34.2	31	28.1	24.5
Clay	%	22.7	18.1	NA	2.8 [3.8]	0.7	0.8	17.5 [16.2]	22.8	15.1	8.4	8.9
75000	% passing	100	100	NA	100 [100]	100	100	100 [100]	100	100	100	100
50000	% passing	100	100	NA	100 [100]	100	100	100 [100]	100	100	100	100
37500	% passing	100	100	NA	100 [100]	100	100	100 [100]	100	100	100	100
25000	% passing	100	100	NA	100 [100]	100	100	100 [100]	100	100	100	100
19000	% passing	100	100	NA	100 [100]	100	100	100 [100]	100	100	100	100
9500	% passing	100	100	NA	100 [100]	100	100	100 [100]	100	100	100	100
4750	% passing	99.2	99.9	NA	93.5 [91.9]	85.9	90.7	97.6 [99.3]	98.8	92.6	100	99.2
2000	% passing	98.6	99.4	NA	77.9 [69.4]	41.3	52.2	95.2 [96.9]	97	90.6	99.7	99
850	% passing	95.6	96.6	NA	66.6 [51.9]	20.7	33.3	88.1 [82.2]	85.1	86.2	95.8	98.4
425	% passing	94.3	95.2	NA	52.1 [37.6]	11.2	20.1	77.9 [70.8]	75.1	78.3	89.1	96.1
250	% passing	93	93.3	NA	37.8 [24.2]	7.3	15.7	72.6 [65.8]	69.6	69.5	82.5	85.8
180	% passing	89.8	86.9	NA	29.7 [16.2]	4.4	11.8	67.7 [61.5]	65.1	60.8	69.4	63.5
150	% passing	88	83	NA	27.8 [14.5]	3.9	10.9	66.4 [60.3]	63.8	57.8	62.8	54.7
75	% passing	77.6	63.5	NA	22.8 [10.6]	2.6	9.4	58.8 [53.8]	57	46.1	36.5	33.5
27	% passing	47.4	37.4	NA	8.3 [7.5]	2.2	1.9	39.3 [37.8]	42.6	34.3	27.3	22.3
18	% passing	43.3	33.6	NA	8.3 [7.5]	1.4	1.9	30.6 [29.7]	36.7	28.8	21	17.9
10.7	% passing	35	27.1	NA	6.9 [6.3]	1.4	0.9	24 [27]	30.7	23.4	16.8	14.5
10.0	% passing	26.8	21.9	NA	4.1 [5]	0.7	0.9	19.7 [18.9]	26.8	19.2	12.6	12.3
5.9	% passing	22.7	18.1	NA	2.8 [3.8]	0.7	0.8	17.5 [16.2]	22.8	15.1	8.4	8.9
3.0	% passing	12.4	9	NA	0 [1.3]	-0.7	-0.2	8.4 [7.7]	14.7	9.4	6	6.5
1.3	% passing	6.2	3.9	NA	0 [1.3]	-0.7	-0.2	6.2 [5]	6.9	5.3	3.9	4.1

See Notes on Page 4

**Kalamazoo River Study Group**  
**Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site**  
**Supplemental Remedial Investigations/Feasibility Studies**  
**Monthly Report #14, April 2008**

**Table B — Top-of-Bank Samples — Data Received in April 2008**

Location ID:		KRT12-TB-B	KRT13-TB-B	KRT13-TB-B	KRT14-TB-A	KRT14-TB-A	KRT14-TB-A	KRT14-TB-A	KRT14-TB-B	KRT14-TB-B	KRT14-TB-B	KRT15-TB-A	KRT15-TB-A
Sample Depth (Inches):		12 - 16	0 - 6	6 - 12	0 - 6	6 - 12	12 - 24	24 - 29	0 - 6	6 - 12	12 - 17	0 - 6	6 - 12
Date Collected:		01/08/08	01/08/08	01/08/08	01/08/08	01/08/08	01/08/08	01/08/08	01/08/08	01/08/08	01/08/08	01/08/08	01/08/08
Sample Name:		K25813	K25814	K25815	K25816	K25817	K25818	K25819	K25820	K25821	K25822	K25823	K25824
Units													
<b>PCB Aroclors</b>													
Aroclor-1016	mg/kg	0.069 U	0.058 U	0.63 U	0.059 U	0.056 U	0.056 U	0.058 U	0.059 U	0.053 U	0.054 U	0.069 U	0.058 U
Aroclor-1221	mg/kg	0.069 U	0.058 U	0.63 U	0.059 U	0.056 U	0.056 U	0.058 U	0.059 U	0.053 U	0.054 U	0.069 U	0.058 U
Aroclor-1232	mg/kg	0.069 U	0.058 U	0.63 U	0.059 U	0.056 U	0.056 U	0.058 U	0.059 U	0.053 U	0.054 U	0.069 U	0.058 U
Aroclor-1242	mg/kg	0.069 U	0.058 U	0.63 U	0.059 U	0.056 U	0.056 U	0.058 U	0.059 U	0.053 U	0.054 U	0.069 U	0.058 U
Aroclor-1248	mg/kg	0.37	0.25	3.6	0.059 U	0.056 U	0.056 U	0.058 U	0.059 U	0.053 U	0.054 U	0.069 U	0.058 U
Aroclor-1254	mg/kg	0.26	0.27	2.7	0.059 U	0.056 U	0.056 U	0.058 U	0.059 U	0.053 U	0.054 U	0.071	0.037 J
Aroclor-1260	mg/kg	0.11	0.074	0.51 J	0.059 U	0.056 U	0.056 U	0.058 U	0.059 U	0.053 U	0.054 U	0.069 U	0.058 U
Total PCBs	mg/kg	0.74	0.59	6.8	0.059 U	0.056 U	0.056 U	0.058 U	0.059 U	0.053 U	0.054 U	0.071	0.037 J
<b>Miscellaneous</b>													
Percent Solids	%	72	86.7	78.9	84.2	89.9	89.9	87.4	85	93.6	91.6	73.2	86.3
Total Organic Carbon	mg/kg	47,700	22,800	33,700	78,900	6,520	3,940	6,140	26,100	6,980	18,000	109,000	119,000
<b>Grain Size Analysis</b>													
Gravel	%	0	2	8.2	2.3	1.6	1.8	1.7	6.4	16.2	3.1	34.3	38.2
Coarse Sand	%	0.1	1.9	14.9	2	1.7	1.1	2	4.9	10.4	5.4	13.1	19.7
Medium Sand	%	3.5	18.1	22.6	14.2	11.3	9.6	8.5	21.5	21	19.5	17.1	16.7
Fine Sand	%	80.8	57.3	29.3	64.9	66.1	65.8	60.5	49	39.8	54.2	19.4	14.3
Silt	%	10	16.8	20.5	11.3	11	12.1	15.6	13.5	5.9	10.9	12.2	8.4
Clay	%	5.7	3.9	4.4	5.3	8.4	9.6	11.7	4.7	6.7	6.8	3.9	2.6
75000	% passing	100	100	100	100	100	100	100	100	100	100	100	100
50000	% passing	100	100	100	100	100	100	100	100	100	100	100	100
37500	% passing	100	100	100	100	100	100	100	100	100	100	100	100
25000	% passing	100	100	100	100	100	100	100	100	100	100	100	100
19000	% passing	100	100	100	100	100	100	100	100	100	100	100	100
9500	% passing	100	100	100	100	100	100	100	95.9	96.8	100	80.5	92.8
4750	% passing	100	98	91.8	97.7	98.4	98.2	98.3	93.6	83.8	96.9	65.7	61.8
2000	% passing	99.9	96.1	76.8	95.7	96.8	97.1	96.3	88.7	73.4	91.5	52.7	42.1
850	% passing	99.6	92.3	64.8	91.6	94.3	95.3	94.3	82.3	66	85.9	44.1	32.9
425	% passing	96.5	78	54.2	81.5	85.5	87.5	87.8	67.2	52.5	72	35.6	25.4
250	% passing	74.5	51.2	45.4	60.5	65.3	69.1	73.3	48.4	36.1	52.2	29	20.9
180	% passing	33.1	33.5	36.8	37.4	41.4	46.2	52.2	31.3	21.9	34.6	22.6	16.7
150	% passing	25.7	29.5	34.2	29.9	33.5	37.9	44	26.4	18.3	28.7	21.1	15.8
75	% passing	15.6	20.7	24.9	16.6	19.4	21.7	27.3	18.2	12.6	17.8	16.1	11.1
27	% passing	11.3	12.6	13.2	12.2	15.1	16.7	20.4	11.5	11.1	12.3	8.9	6.3
18	% passing	9.9	9.7	11.8	10.1	13.8	15	18.4	9.8	10.4	12.3	8.9	6.3
10.7	% passing	8.5	7.8	8.8	8	11	12.3	15.7	7.3	9.6	10.1	5.5	4.5
10.0	% passing	7.1	4.9	5.9	6	10.4	10.7	13.7	5.6	8.2	8	5.5	2.6
5.9	% passing	5.7	3.9	4.4	5.3	8.4	9.6	11.7	4.7	6.7	6.8	3.9	2.6
3.0	% passing	4	1.8	1.2	3.3	7.1	7.5	8.3	2.9	5.4	5.9	2.3	0.8
1.3	% passing	4	1.8	1.2	2.6	6.3	6.4	6.3	2.1	3.9	4.8	2.3	0.8

See Notes on Page 4

**Kalamazoo River Study Group**  
**Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site**  
**Supplemental Remedial Investigations/Feasibility Studies**  
**Monthly Report #14, April 2008**

**Table B — Top-of-Bank Samples — Data Received in April 2008**

Location ID:	KRT15-TB-A	KRT15-TB-B	KRT15-TB-B	KRT15-TB-B	KRT16-TB-A	KRT16-TB-A	KRT16-TB-A	KRT16-TB-B	KRT16-TB-B	KRT16-TB-B	KRT16-TB-B
Sample Depth (inches):	12-14	0-6	6-12	12-14	0-6	6-12	12-15	0-6	6-12	12-14	12-13
Date Collected:	01/08/08	01/08/08	01/08/08	01/08/08	01/08/08	01/08/08	01/08/08	01/08/08	01/08/08	01/08/08	01/08/08
Sample Name:	K25825	K25826	K25827	K25828	K25829	K25830	K25831	K25832	K25833	K25834	
Units:											
<b>PCB Aroclors</b>											
Aroclor-1016	mg/kg	0.18 U	0.61 U	0.053 U	0.052 U	0.28 U	0.27 U	1.2 U	0.058 U	0.059 U	0.059 U
Aroclor-1221	mg/kg	0.18 U	0.61 U	0.053 U	0.052 U	0.28 U	0.27 U	1.2 U	0.058 U	0.059 U	0.059 U
Aroclor-1232	mg/kg	0.18 U	0.61 U	0.053 U	0.052 U	0.28 U	0.27 U	1.2 U	0.058 U	0.059 U	0.059 U
Aroclor-1242	mg/kg	0.18 U	0.61 U	0.053 U	0.052 U	0.28 U	0.27 U	1.2 U	0.058 U	0.059 U	0.059 U
Aroclor-1248	mg/kg	1.5	2.8	0.32	0.047 J	0.28 U	0.27 U	1.2 U	0.058 U	0.067	0.059 U
Aroclor-1254	mg/kg	0.81	2.0	0.18	0.051 J	2.9	2.5	12	0.078	0.13	0.059 U
Aroclor-1260	mg/kg	0.15 J	0.61 U	0.053 U	0.052 U	0.92	0.79	3.8	0.058 U	0.059 U	0.059 U
Total PCBs	mg/kg	2.5	4.8	0.50	0.098 J	3.8	3.3	16	0.078	0.20	0.059 U
<b>Miscellaneous</b>											
Percent Solids	%	82.3	82.4	94.9	94.8	89.1	91.3	85.8	85.7	83.6	85.4
Total Organic Carbon	mg/kg	107,000	49,900	4,070	32,800	20,100	50,900	61,200	39,600	23,700	17,800
<b>Grain Size Analysis</b>											
Gravel	%	NA	3.6	4.3	NA	7.5	24.9	NA	21.4	25.9	NA
Coarse Sand	%	NA	5.5	8.2	NA	4.2	11.9	NA	22.3	22.7	NA
Medium Sand	%	NA	28.1	23.6	NA	8.5	13.9	NA	14	13.4	NA
Fine Sand	%	NA	45.1	52.8	NA	64.5	39.4	NA	28	28.9	NA
Silt	%	NA	12.7	5.3	NA	10.9	6.7	NA	12.7	6.4	NA
Clay	%	NA	5	5.7	NA	4.4	3.3	NA	1.6	2.7	NA
75000	% passing	NA	100	100	NA	100	100	NA	100	100	NA
50000	% passing	NA	100	100	NA	100	100	NA	100	100	NA
37500	% passing	NA	100	100	NA	100	100	NA	100	100	NA
25000	% passing	NA	100	100	NA	100	100	NA	100	100	NA
19000	% passing	NA	100	100	NA	100	100	NA	100	100	NA
9500	% passing	NA	100	100	NA	97.3	90.3	NA	96.4	97	NA
4750	% passing	NA	96.4	95.7	NA	92.5	75.1	NA	78.6	74.1	NA
2000	% passing	NA	90.8	87.5	NA	88.3	63.3	NA	56.3	51.4	NA
850	% passing	NA	81.6	79.4	NA	84.6	56.4	NA	49	44.2	NA
425	% passing	NA	62.8	63.9	NA	79.8	49.4	NA	42.3	38	NA
250	% passing	NA	41.2	42.5	NA	64.2	38.7	NA	28.4	23.5	NA
180	% passing	NA	25.7	22.8	NA	37.6	23.7	NA	20.5	15.2	NA
150	% passing	NA	22.5	17.9	NA	28.7	18.9	NA	18.2	12.9	NA
75	% passing	NA	17.7	11.1	NA	15.3	10	NA	14.4	9	NA
27	% passing	NA	12.9	9.4	NA	11.4	7.8	NA	6.1	6.8	NA
18	% passing	NA	9.5	8.8	NA	9.4	6.3	NA	5.2	5.4	NA
10.7	% passing	NA	8.4	7.6	NA	7.4	4.8	NA	3.4	4	NA
10.0	% passing	NA	6.1	7	NA	5.4	4.1	NA	2.5	3.3	NA
5.9	% passing	NA	5	5.7	NA	4.4	3.3	NA	1.6	2.7	NA
3.0	% passing	NA	1.7	4.6	NA	2.5	1.9	NA	1.6	1.3	NA
1.3	% passing	NA	1.6	3.4	NA	1.4	1.1	NA	1.6	1.3	NA

See Notes on Page 4

**Kalamazoo River Study Group  
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site  
Supplemental Remedial Investigations/Feasibility Studies  
Monthly Report #14, April 2008**

**Table B — Top-of-Bank Samples — Data Received in April 2008**

**Notes:**

J - The compound was positively identified, however, the associated numerical value is an estimated concentration only  
U - The compound was analyzed for but not detected The associated value is the compound quantitation limit

NA - Not analyzed

Duplicate results in brackets

**Kalamazoo River Study Group**  
**Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site**  
**Supplemental Remedial Investigations/Feasibility Studies**  
**Monthly Report #14, April 2008**

**Table C — Post-Removal Sediment Samples — Plainwell TCRA — Data Received in April 2008**

Location ID:		PCS-1-1	PCS-1-2	PCS-1-3	PCS-2A-1	PCS-2A-2	PCS-2A-3	PCS-3B-1	PCS-3B-2	PCS-3B-3	PCS-4B-1	PCS-4B-2	PCS-4B-3	PCS-5-1	PCS-5-2	PCS-5-3
Sample Depth (inches):	0 - 2"	0 - 2"	0 - 2"	0 - 2"	0 - 2"	0 - 2"	0 - 2"	0 - 2"	0 - 2"	0 - 2"	0 - 2"	0 - 2"	0 - 2"	0 - 2"	0 - 2"	
Date Collected:	01/23/08	01/23/08	01/23/08	01/23/08	01/23/08	01/23/08	01/23/08	01/23/08	01/23/08	01/23/08	01/23/08	01/23/08	01/23/08	01/23/08	01/23/08	
Sample Name:	K55482	K55481	K55480	K55479	K55478	K55477	K55476	K55484	K55485	K55486	K55487	K55488	K55489	K55476	K55475	K55474
Units																
<b>PCB Aroclors</b>																
Aroclor-1016	mg/kg	2.8 U	0.42 U	0.19 U	0.56 U	0.064 U	0.065 U	0.079 U	0.064 U	0.072 U	0.12 U	0.064 U	0.064 U	0.18 U	0.14 U	0.093 U
Aroclor-1221	mg/kg	2.8 U	0.42 U	0.19 U	0.56 U	0.064 U	0.065 U	0.079 U	0.064 U	0.072 U	0.12 U	0.064 U	0.064 U	0.18 U	0.14 U	0.093 U
Aroclor-1232	mg/kg	2.8 U	0.42 U	0.19 U	0.56 U	0.064 U	0.065 U	0.079 U	0.064 U	0.072 U	0.12 U	0.064 U	0.064 U	0.18 U	0.14 U	0.093 U
Aroclor-1242	mg/kg	43	4.1	2.1	5.5	0.15	0.21	0.45	0.11	0.061 J	0.12 U	0.062 J	0.14	0.70	0.43	0.15
Aroclor-1248	mg/kg	2.8 U	0.42 U	0.19 U	0.56 U	0.062 J	0.065 U	0.089	0.20	0.074	0.12 U	0.088	0.083	0.25	0.22	0.093 U
Aroclor-1254	mg/kg	4.7	0.34 J	0.76	1.1	0.047 J	0.042 J	0.96	0.11	0.084	0.12 U	0.055 J	0.065	0.48	0.26	0.093 U
Aroclor-1260	mg/kg	2.8 U	0.42 U	0.19 U	0.56 U	0.064 U	0.065 U	0.10	0.064 U	0.072 U	0.12 U	0.064 U	0.064 U	0.097 J	0.071 J	0.093 U
Total PCBs	mg/kg	48	4.4	2.9	6.6	0.26 J	0.25	2.4	0.42	0.22	0.12 U	0.21 J	0.29	1.5	0.98	0.15
<b>Miscellaneous</b>																
Percent Solids	%	53.1	59.7	53.2	17.9	77.7	77.1	63	77.9	70.3	41.2	78	77.7	27.3	37.3	53.9
Total Organic Carbon	mg/kg	41,600	21,300	40,600	150,000	5,310	1,540	11,000	8,420	14,600	55,500	30,900	30,800	70,700	56,000	29,300
<b>Grain Size Analysis</b>																
Gravel	%	45.5	29.4	23.1	9.7	0.3	3.4	16.5	41.3	14.3	65.3	0.9	1.5	0	0.4	0.2
Coarse Sand	%	15.1	15	9.8	3.7	17.7	21.4	11.4	19.5	16.8	7	2.3	6.4	0.1	0.3	1.1
Medium Sand	%	16.6	22.9	9.2	4.3	38.9	37.2	50	30.5	43	14.6	76	68.5	2.4	2.9	8.1
Fine Sand	%	6.8	21.7	39.9	38.3	38.1	32.9	15.4	7.6	23.5	6.3	18.7	21.2	9.3	36.5	56.9
Silt	%	8.2	9	17.2	40.2	4.3	4.8	4.6	0.8	1.5	5.3	1.7	1.7	72	51.1	21.9
Clay	%	7.8	1.9	0.9	3.7	0.8	0.2	2.1	0.3	0.9	1.5	0.3	0.8	16.2	8.9	11.9
75000	% passing	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
50000	% passing	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
37500	% passing	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
25000	% passing	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
19000	% passing	100	100	88.3	100	100	100	100	100	100	100	100	100	100	100	100
9500	% passing	72.1	88.9	84.7	92.6	100	99.7	89.3	74.4	92.7	47.6	100	100	100	100	100
4750	% passing	54.5	70.6	76.9	90.3	99.7	96.6	83.5	58.7	85.7	34.7	99.1	98.5	100	99.6	99.8
2000	% passing	39.4	55.5	67.2	86.6	82	75.1	72.1	39.2	68.9	27.7	96.7	92.1	99.9	99.3	98.7
850	% passing	28.8	43.3	63.1	85	50.9	51.1	45	19.2	45.3	20.4	69.6	62.4	98.1	97.6	95.1
425	% passing	22.8	32.7	58	82.2	43.2	37.9	22.1	8.7	25.8	13.1	20.7	23.6	97.5	96.4	90.6
250	% passing	20	25.2	47	78.6	36.1	26.5	13.1	4.4	15.6	9.4	6.1	9.6	96.8	92.8	79.4
180	% passing	17.5	18.3	32.8	70.2	16.5	11.9	8.9	2	7.3	7.6	2.3	3.7	94.9	82.6	57
150	% passing	17.2	15.7	28.6	65.9	10.6	8.8	8.2	1.6	5.5	7.4	2.2	3	94.2	77.9	50.8
75	% passing	16	10.9	18	43.9	5.1	5	6.7	1	2.4	6.8	2	2.4	88.2	59.9	33.8
27	% passing	12.7	4.1	3.7	11.1	0.8	0.7	4.4	0.7	2	3.1	0.9	0.8	50.8	25.3	29.4
18	% passing	11	4.1	3.1	9.6	0.8	0.7	4.4	0.7	1.4	2.7	0.9	0.8	37.8	21.2	24.5
10.7	% passing	10.2	3	2	6.6	0.8	0.7	3.2	0.7	0.9	2.3	0.3	0.8	27	15.8	18.2
10.0	% passing	9.4	2.4	2	5.2	0.8	0.7	2.6	0.3	0.9	1.9	0.3	0.8	20.5	11.7	14.5
5.9	% passing	7.8	1.9	0.9	3.7	0.8	0.2	2.1	0.3	0.9	1.5	0.3	0.8	16.2	8.9	11.9
3.0	% passing	6.1	1.3	0.8	2.1	0.8	0.2	2	0.2	0.3	0.6	0.3	0.8	11.7	4.8	8.1
1.3	% passing	3.7	1.3	0.8	2.1	0.8	0.2	0.9	0.2	0.3	0.2	0.3	0.3	7.4	2	4.4

See Notes on Page 3

**Kalamazoo River Study Group**  
**Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site**  
**Supplemental Remedial Investigations/Feasibility Studies**  
**Monthly Report #14, March 2008**

**Table C — Post-Removal Sediment Samples — Plainwell TCRA — Data Received in April 2008**

Location ID:		PCS-6A-2	PCS-6A-3	PCS-6B-1	PCS-6B-2	PCS-6B-3	PCS-7-2	PCS-8-1	PCS-8-2	PCS-8-3	PCS-11-1	PCS-11-2	PCS-11-3	PCS-12-1	PCS-12-2	PCS-12-3
Sample Depth (inches):		0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2
Date Collected:		01/23/08	01/23/08	01/22/08	01/22/08	01/22/08	01/22/08	01/22/08	01/22/08	01/22/08	01/22/08	01/22/08	01/22/08	01/22/08	01/22/08	01/22/08
Sample Name:		K55489	K55490	K55466	K55465	K55464	K55463	K55461	K55460	K55459	K55470	K55469	K55468	K55473	K55472	K55471
<b>PCB Aroclors</b>																
Aroclor-1016	mg/kg	0.093 U	0.063 U	0.13 U [0.13 U]	0.098 U	0.084 U	0.064 U	0.060 U [0.060 U]	0.062 U	0.057 U	0.054 U	0.064 U	0.060 U	0.17 U	0.069 U	0.062 U
Aroclor-1221	mg/kg	0.093 U	0.063 U	0.13 U [0.13 U]	0.098 U	0.084 U	0.064 U	0.060 U [0.060 U]	0.062 U	0.057 U	0.054 U	0.064 U	0.060 U	0.17 U	0.069 U	0.062 U
Aroclor-1232	mg/kg	0.093 U	0.063 U	0.13 U [0.13 U]	0.098 U	0.084 U	0.064 U	0.060 U [0.060 U]	0.062 U	0.057 U	0.054 U	0.064 U	0.060 U	0.17 U	0.069 U	0.062 U
Aroclor-1242	mg/kg	0.093 U	0.063 U	0.13 U [0.13 U]	0.098 U	0.084 U	0.064 U	0.060 U [0.060 U]	0.062 U	0.057 U	0.054 U	0.064 U	0.060 U	0.22	0.069 U	0.052 J
Aroclor-1248	mg/kg	0.055 J	0.065	0.46 [0.076 J]	0.098 U	0.049 J	0.064 U	0.060 U [0.060 U]	0.035 J	0.057 U	0.054 U	0.064 U	0.032 J	0.13 J	0.23	0.039 J
Aroclor-1254	mg/kg	0.093 U	0.063 U	0.077 J [0.13 U]	0.18	0.084 U	0.064 U	0.060 U [0.060 U]	0.062 U	0.057 U	0.054 U	0.064 U	0.060 U	0.18	0.051 J	0.033 J
Aroclor-1260	mg/kg	0.093 U	0.063 U	0.13 U [0.13 U]	0.098 U	0.084 U	0.064 U	0.060 U [0.060 U]	0.062 U	0.057 U	0.054 U	0.064 U	0.060 U	0.17 U	0.069 U	0.062 U
Total PCBs	mg/kg	0.055 J	0.065	0.54 [0.076 J]	0.18	0.049 J	0.064 U	0.060 U [0.060 U]	0.035 J	0.057 U	0.054 U	0.064 U	0.032 J	0.53	0.28 J	0.12 J
<b>Miscellaneous</b>																
Percent Solids	%	54.2	80.5	37 [37.9]	50.6	58.9	77.6	82.6 [82.5]	80.4	87.8	93	79.3	82.8	28.5	72.9	79.8
Total Organic Carbon	mg/kg	74,300	18,900	67,600 [55,000]	22,400	30,600	814	6,870 J [2,550]	1,100	2,370	2,350	15,800	5,010	127,000	18,800	9,540
<b>Grain Size Analysis</b>																
Gravel	%	88.8	66.6	12.3 [12.3]	30.3	37.4	NA	0.1 [0.3]	4	64.1	40.7	42.1	13.3	40.8	35.1	43.9
Coarse Sand	%	2	11.9	5.5 [2.9]	14.4	10.2	NA	0.8 [1.3]	15.3	19.1	27.3	23.1	13.6	3.6	7	8.1
Medium Sand	%	2.7	6.9	15.4 [17.8]	27.3	17.2	NA	69 [69.5]	46.7	4	17.4	18.2	41.3	8.1	21.2	16.9
Fine Sand	%	3.7	8.8	17.5 [18.4]	18.8	11.6	NA	28.5 [28]	32.5	2.1	10.9	14.5	29.7	.26.8	30.6	25.5
Silt	%	2.3	5.7	31.4 [29]	7.7	20.7	NA	0.7 [0.6]	0.7	10	3.5	1.7	1.7	14.4	4.9	5.3
Clay	%	0.6	0.2	17.9 [19.6]	1.5	2.8	NA	1 [0.3]	0.8	0.7	0.2	0.3	0.3	6.3	1.1	0.3
75000	% passing	100	100	100 [100]	100	100	NA	100 [100]	100	100	100	100	100	100	100	100
50000	% passing	100	100	100 [100]	100	100	NA	100 [100]	100	100	100	100	100	100	100	100
37500	% passing	100	100	100 [100]	100	100	NA	100 [100]	100	100	100	100	100	100	100	100
25000	% passing	100	100	100 [100]	100	100	NA	100 [100]	100	100	100	100	100	100	100	100
19000	% passing	40.8	90.5	100 [100]	83.4	92.6	NA	100 [100]	100	100	96.4	100	100	100	91.8	100
9500	% passing	15.6	54.2	91.3 [92.8]	81.9	73.1	NA	100 [100]	100	66.8	86.1	85.4	95.4	64.5	76	64.8
4750	% passing	11.2	33.4	87.7 [87.7]	69.7	62.6	NA	99.9 [99.7]	96	35.9	59.3	57.9	86.7	59.2	64.9	56.1
2000	% passing	9.3	21.5	82.2 [84.8]	55.3	52.3	NA	99.2 [98.5]	80.7	16.8	32	34.8	73	55.6	57.9	48
850	% passing	8.1	17.7	77.7 [78.7]	43	45.3	NA	87.4 [86.3]	60.1	13.5	22.2	24.9	59.2	52.1	51	40.9
425	% passing	6.6	14.6	66.8 [67.1]	28	35.1	NA	30.2 [28.9]	34	12.8	14.6	16.5	31.7	47.5	36.6	31.1
250	% passing	5.6	11.2	57.6 [57.3]	17.1	27.8	NA	6.6 [5.5]	8.5	12.2	7.4	6.8	7.2	43.5	19.1	19
180	% passing	4	7.2	52.2 [51.5]	12.1	24.9	NA	2.5 [1.6]	2.5	11.1	4.1	2.4	2.1	35.8	10.3	10.4
150	% passing	3.7	6.6	51.6 [50.9]	11.2	24.6	NA	2.1 [1.3]	2	11	3.9	2.2	2	33	8.6	8.5
75	% passing	2.9	5.8	49.3 [48.7]	9.2	23.5	NA	1.6 [0.9]	1.5	10.7	3.7	2	2	20.7	6	5.6
27	% passing	0.6	0.6	38.2 [39.9]	4.3	7	NA	1 [0.9]	0.8	1.5	0.7	0.8	0.8	17.1	2.5	1.7
18	% passing	0.6	0.6	33.6 [37.3]	3.7	5.9	NA	1 [0.9]	0.8	1.5	0.7	0.8	0.8	13.6	2	1.2
10.7	% passing	0.6	0.6	27.4 [30.5]	2.1	4.4	NA	1 [0.9]	0.8	1.1	0.7	0.8	0.8	10	2	1.2
10.0	% passing	0.6	0.2	22.7 [23.7]	2.1	3.9	NA	1 [0.9]	0.8	1.1	0.2	0.3	0.8	8.2	1.6	0.8
5.9	% passing	0.6	0.2	17.9 [19.6]	1.5	2.8	NA	1 [0.3]	0.8	0.7	0.2	0.3	0.3	6.3	1.1	0.3
3.0	% passing	0.2	0.2	11.7 [14.1]	0.8	2.3	NA	0.3 [0.3]	0.3	0.6	0.2	0.3	0.2	2.5	0.6	0.2
1.3	% passing	0.2	0.2	6.9 [10]	0.8	1.8	NA	0.3 [0.3]	0.2	0.6	0.2	0.2	0.2	2.5	0.2	0.2

See Notes on Page 3

**Kalamazoo River Study Group  
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site  
Supplemental Remedial Investigations/Feasibility Studies  
Monthly Report #14, April 2008**

**Table C — Post-Removal Sediment Samples — Plainwell TCRA — Data Received in April 2008**

**Notes:**

- J - The compound was positively identified, however, the associated numerical value is an estimated concentration only
  - U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit
  - UJ - The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation
  - NA - Not analyzed due to insufficient sample volume
- Duplicate results are in brackets